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Application Number [ ] Submit

IDS Flag Clearance for Application 10673781

IDS Information

Content	Mailroom Date	Entry Number	IDS Review	Last Modified	Reviewer
M844	2003-09-29	15	Y ☑	2006-11-03 10:48:45.0	LCook
Update					

10/673,781
Updated Search
LCook 11/3/06

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(FILE 'HOME' ENTERED AT 13:04:21 ON 03 NOV 2006)

FILE 'BIOSIS, CAPLUS, EMBASE, MEDLINE, JAPIO' ENTERED AT 13:04:39 ON 03 NOV 2006

L1	2331	S ANTIBOD? AND MYOGLOBIN
L2	11	S L1 AND (CARBONIC ANHYDRASE III)
L3	5	DUPLICATE REMOVE L2 (6 DUPLICATES REMOVED)
L4	1039	S (CARBONIC ANHYDRASE III)
L5	1	S L4 AND STREPTAVIDIN?
L6	76	S L4 AND ANTIBOD?
L7	35	DUPLICATE REMOVE L6 (41 DUPLICATES REMOVED)
L8	2	S L7 AND BIOTIN?
L9	5	S L7 AND MYOGLOBIN?
L10	2	DUPLICATE REMOVE L8 (0 DUPLICATES REMOVED)
L11	5	DUPLICATE REMOVE L9 (0 DUPLICATES REMOVED)
L12	4	S L11 NOT L10
L13	179461	S (FUSION PROTEIN)
L14	3	S L13 AND L4
L15	3	DUPLICATE REMOVE L14 (0 DUPLICATES REMOVED)

d his

(FILE 'HOME' ENTERED AT 13:04:21 ON 03 NOV 2006)

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L11	5	DUPLICATE REMOVE L9 (0 DUPLICATES REMOVED)
L12	4	S L11 NOT L10
L13	179461	S (FUSION PROTEIN)
L14	3	S L13 AND L4
L15	3	DUPLICATE REMOVE L14 (0 DUPLICATES REMOVED)

ANSWER 2 OF 5 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
DUPLICATE 1
AN 1999:58935 BIOSIS
DN PREV199900058935
TI Production and characterization of monoclonal antibodies to human carbonic anhydrase III.
AU Azzazy, Hassan M. E. [Reprint author]; Cummings, Patrick J.; Ambrozak, David R.; Christenson, Robert H.
CS Univ. Md. Sch. Med., Dep. Med. and Res. Technol., 100 Penn St., Room 440E, Balimore, MD 21201, USA
SO Hybridoma, (Dec., 1998) Vol. 17, No. 6, pp. 553-558. print.
CODEN: HYBRDY. ISSN: 0272-457X.
DT Article
LA English
ED Entered STN: 16 Feb 1999
Last Updated on STN: 16 Feb 1999
AB Carbonic anhydrase III (CAIII) is a cytosolic protein found almost exclusively in slow-oxidative skeletal muscle fibers. Upon excessive skeletal muscle activity or damage, CAIII is rapidly released into serum. CAM is not found in cardiac muscle, whereas the muscle protein myoglobin (Myo) is found in skeletal and cardiac muscle. Because CAIII and Myo are released from injured muscle in a constant ratio, an increase in the Myo/CA III ratio may be useful as an early diagnostic indicator of acute myocardial damage. Although several reliable Myo immunoassays have been established, no similar CAIII immunoassay is commercially available. We produced murine monoclonal antibodies (MAbs) to human CAIII using standard immunization and cell fusion procedures. Using an enzyme-linked immunoadsorbent assay (ELISA), three MAbs showed strong immunoreactivity with CAIII, but low to moderate levels of cross-reactivity with closely related isoenzymes CAI and CAII. The three MAbs demonstrated unique patterns of reactivity toward CAI, CAII, and CAIII, suggesting that different CAIII epitopes are recognized by the three MAbs. Specificity was further examined by Western blot analysis. These MAbs demonstrated potential for use in the development of an immunoassay for CAIII, and for investigating the biology of skeletal muscle injury in vivo.
CC Immunology - General and methods 34502
Cytology - Animal 02506
Biophysics - Methods and techniques 10504
Enzymes - Methods 10804
Enzymes - Chemical and physical 10806
Tissue culture, apparatus, methods and media 32500
Biochemistry studies - Proteins, peptides and amino acids 10064
IT Major Concepts
Enzymology (Biochemistry and Molecular Biophysics); Immune System (Chemical Coordination and Homeostasis); Methods and Techniques
IT Chemicals & Biochemicals
human carbonic anhydrase III; monoclonal antibodies: characterization, production
IT Methods & Equipment
cell culture: cell culture method, cell culture techniques; mini-PROTEAN II CELL apparatus: equipment; ELISA: detection method, detection/labeling techniques; SDS polyacrylamide gel electrophoresis: polyacrylamide gel electrophoresis, separation method; Western blot: detection method, detection/labeling techniques
ORGN Classifier
Muridae 86375
Super Taxa
Rodentia; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
BALB/c mouse: Jackson Laboratories, female
Taxa Notes
Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Rodents, Vertebrates

RN 9001-03-0 (CARBONIC ANHYDRASE)
9003-05-8 (POLYACRYLAMIDE)

ANSWER 5 OF 5 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
DUPLICATE 2
AN 1992:117981 BIOSIS
DN PREV199293063781; BA93:63781
TI DUAL-LABEL TIME-RESOLVED FLUOROIMMUNOASSAY FOR SIMULTANEOUS DETECTION OF MYOGLOBIN AND CARBONIC ANHYDRASE III IN SERUM.
AU VUORI J [Reprint author]; RASI S; TAKALA T; VAANANEN K
CS DEACONESS INST OULU, SEPANKATU 17, SF-90100 OULU, FINLAND
SO Clinical Chemistry, (1991) Vol. 37, No. 12, pp. 2087-2092.
CODEN: CLCHAU. ISSN: 0009-9147.
DT Article
FS BA
LA ENGLISH
ED Entered STN: 1 Mar 1992
Last Updated on STN: 2 Mar 1992
AB We developed a dual-labeled time-resolved fluorimmunonoassay for simultaneous quantification of myoglobin (Mb) and carbonic anhydrase III (CA III) in serum involving polyclonal antibodies and the fluorescent lanthanides europium (Eu3+) and samarium (Sm3+). This solid-phase immunoassay is based on competition between Eu3+ or Sm3+-labeled antigen and the sample antigen for polyclonal rabbit antibodies. Standards and patients' samples containing antigen inhibit binding of the lanthanide-labeled antigen to the antibody. A second antibody directed against rabbit IgG is coated on a solid phase and binds the IgG-antigen-lanthanide complex, giving rapid and complete separation of antibody-bound and free antigen. The assay required only one incubation step. An enhancement solution dissociates Eu3+ and Sm3+ ions from the labeled CA III and Mb, respectively, into a solution where they form highly fluorescent chelates. Spectra of the fluorescent chelates in the microtritation-strip wells were run on a time-resolved fluorometer equipped with filters for Eu3+ (613 nm) and Sm3+ (643 nm), the fluorescence from each sample being inversely proportional to the concentration of antigens. The measurement range for both analytes is from 5 to 1500 µng/L. The mean within-and between-assay precisions (CV) were 4.6% and 6.2% for CA III and 5.9% and 7,.3% for Mb, respectively. Good correlations were obtained with the results of CA III RIA and a commercial myoglobin RIA kit.
CC Clinical biochemistry - General methods and applications 10006
Biochemistry methods - Proteins, peptides and amino acids 10054
Biochemistry studies - Proteins, peptides and amino acids 10064
Biochemistry studies - Carbohydrates 10068
Enzymes - Methods 10804
Enzymes - Chemical and physical 10806
Enzymes - Physiological studies 10808
Blood - General and methods 15001
Blood - Blood and lymph studies 15002
Immunology - General and methods 34502
IT Major Concepts
Biochemistry and Molecular Biophysics; Blood and Lymphatics (Transport and Circulation); Clinical Chemistry (Allied Medical Sciences); Enzymology (Biochemistry and Molecular Biophysics); Immune System (Chemical Coordination and Homeostasis)
IT Miscellaneous Descriptors
HUMAN IMMUNOGLOBULIN G SAMARIUM ION EUROPIUM ION RADIOIMMUNOASSAY
ORGN Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Taxa Notes
Animals, Chordates, Humans, Mammals, Primates, Vertebrates
RN 9001-03-0 (CARBONIC ANHYDRASE)
7440-19-9 (SAMARIUM)

Pull Wood 11/3/06

7440-53-1 (EUROPIUM)

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ANSWER 5 OF 5 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
DUPLICATE 2
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DN PREV199293063781; BA93:63781
TI DUAL-LABEL TIME-RESOLVED FLUOROIMMUNOASSAY FOR SIMULTANEOUS DETECTION OF MYOGLOBIN AND CARBONIC ANHYDRASE III
IN SERUM.
AU VUORI J [Reprint author]; RASI S; TAKALA T; VAANANEN K
CS DEACONESS INST OULU, SEPANKATU 17, SF-90100 OULU, FINLAND
SO Clinical Chemistry, (1991) Vol. 37, No. 12, pp. 2087-2092.
CODEN: CLCHAU. ISSN: 0009-9147.
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ORGN Classifier
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7440-53-1 (EUROPIUM)

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Updated Search
LYCook 11/3/06.

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(FILE 'HOME' ENTERED AT 17:33:45 ON 03 NOV 2006)

FILE 'BIOSIS, CAPLUS, EMBASE, MEDLINE, JAPIO' ENTERED AT 17:34:10 ON 03 NOV 2006

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L1          428 S (ANTIBOD? CONJUGATE) AND STREPTAVIDIN?
L2            0 S L1 AND (CARBONIC ANHYDRASE III)
L3          368 DUPLICATE REMOVE L1 (60 DUPLICATES REMOVED)
L4          210 S L3 AND PD<2000
L5            9 S L4 AND POLYNUCLEOTIDE?
L6            4 S L4 AND POLYPEPTIDE?
L7           22 S L4 AND SINGLE?
L8            2 S L5 AND L7
L9            0 S L8 AND L6
L10           0 S (ANTIBOD? FUSED STREPTAVIDIN)
L11           0 S (ANTIBOD? BOUND STREPTAVIDIN)
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FILE 'BIOSIS, CAPLUS, EMBASE, MEDLINE, JAPIO' ENTERED AT 17:51:25 ON 03 NOV 2006

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L12         123 S (STREPTAVIDIN ANTIBOD?)
L13          48 S L12 AND PD<2000
L14          38 DUPLICATE REMOVE L13 (10 DUPLICATES REMOVED)
L15           0 S L14 AND (CARBONIC ANHYDRASE)
L16           0 S L14 AND MYOGLOBIN?
L17           2 S L12 AND MYOGLOBIN?
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L2            0 S L1 AND (CARBONIC ANHYDRASE III)
L3          368 DUPLICATE REMOVE L1 (60 DUPLICATES REMOVED)
L4          210 S L3 AND PD<2000
L5            9 S L4 AND POLYNUCLEOTIDE?
L6            4 S L4 AND POLYPEPTIDE?
L7           22 S L4 AND SINGLE?
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L16           0 S L14 AND MYOGLOBIN?
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ANSWER 9 OF 9 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN

AN 92281259 EMBASE
DN 1992281259
TI Reversible immobilization of antibodies on magnetic beads.
AU Scouten W.H.; Konecny P.
CS Chemistry Department, Baylor University,Waco, TX 76798, United States
SO Analytical Biochemistry, (1992) Vol. 205, No. 2, pp. 313-318. .
ISSN: 0003-2697 CODEN: ANBCA2
CY United States
DT Journal; Article
FS 026 Immunology, Serology and Transplantation
029 Clinical Biochemistry
LA English
SL English
ED Entered STN: 11 Oct 1992
Last Updated on STN: 11 Oct 1992
AB A streptavidin-biotin system was utilized to prepare an antibody- polyadenylic acid conjugate which was subsequently attached to commercially available magnetic beads, Dynabeads oligo(dT)25. Biotinylated polyadenylic acid was combined with streptavidin and the resulting polyadenylic acid- streptavidin was conjugated with an antibody-biotin derivative. The immobilized antibody-polyadenylic acid conjugate was separated from the reaction mixture by hybridization with complementary oligonucleotide immobilized on the surface of Dynabeads oligo(dT)25. The immobilized antibody-polyadenylic acid can be released from the carrier, utilizing low- ionic-strength buffers. The system is intended to be utilized in cell sorting, using immobilized antibodies against cell surface antigens. Dissociation of antibody-containing conjugate from magnetic beads is essential for the isolation of viable cells via positive cell sorting.
CT Medical Descriptors:
*immobilization
article
biology
cell function
cell selection
cell viability
hybridization
priority journal
Drug Descriptors:
*antibody
*biotin
*complimentary oligodeoxynucleotide
*membrane antigen
*polyadenylic acid
*streptavidin
antibody conjugate
polynucleotide
unclassified drug
RN (biotin) 58-85-5; (polyadenylic acid) 24937-83-5; (streptavidin) 9013-20-1

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ANSWER 9 OF 9 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN

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DN 1992281259
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CT Medical Descriptors:
*immobilization
article
biology
cell function
cell selection
cell viability
hybridization
priority journal
Drug Descriptors:
*antibody
*biotin
*complimentary oligodeoxynucleotide
*membrane antigen
*polyadenylic acid
*streptavidin
antibody conjugate
polynucleotide
unclassified drug
RN (biotin) 58-85-5; (polyadenylic acid) 24937-83-5; (streptavidin) 9013-20-1

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ANSWER 14 OF 38 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1998:427289 CAPLUS
DN 129:94191
ED Entered STN: 11 Jul 1998
TI Development of a streptavidin-conjugated single-chain antibody that binds Bacillus cereus spores
AU Koo, Kai; Foegeding, Peggy M.; Swaisgood, Harold E.
CS Department of Food Science, North Carolina State University, Raleigh, NC, 27695-7624, USA
SO Applied and Environmental Microbiology (1998), 64(7), 2497-2502
CODEN: AEMIDF; ISSN: 0099-2240
PB American Society for Microbiology
DT Journal
LA English
CC 15-3 (Immunochemistry)
Section cross-reference(s): 17
AB Control of microorganisms such as Bacillus cereus spores is critical to ensure the safety and a long shelf life of foods. A bifunctional single chain antibody has been developed for detection and binding of B. cereus T spores. The genes that encode B. cereus T spore single-chain antibody and streptavidin were connected for use in immunoassays and immobilization of the recombinant antibodies. A truncated streptavidin, which is smaller than but has biotin binding ability similar to that of streptavidin, was used as the affinity domain because of its high and specific affinity with biotin. The fusion protein gene was expressed in Escherichia coli BL21 (DE3) with the T7 RNA polymerase-T7 promoter expression system. Immunoblotting revealed an antigen specificity similar to that of its parent native monoclonal antibody. The single-chain antibody-streptavidin fusion protein can be used in an immunoassay of B. cereus spores by applying a biotinylated enzyme detection system. The recombinant antibodies were immobilized on biotinylated magnetic beads by taking advantage of the strong biotin-streptavidin affinity. Various liqs. were artificially contaminated with 5 + 104 B. cereus spores per mL. Greater than 90% of the B. cereus spores in phosphate buffer or 37% of the spores in whole milk were tightly bound and removed from the liquid phase by the immunomagnetic beads.
ST streptavidin antibody Bacillus spore
IT Spore
(T; streptavidin-conjugated single-chain antibody binds Bacillus cereus T spores)
IT Antibodies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(single chain; streptavidin-conjugated single-chain antibody binds Bacillus cereus T spores)
IT Bacillus cereus
Food preservation
(streptavidin-conjugated single-chain antibody binds Bacillus cereus T spores)
IT Fusion proteins (chimeric proteins)
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(streptavidin-conjugated single-chain antibody binds Bacillus cereus T spores)
IT 9013-20-1DP, Streptavidin, antibody conjugates
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(streptavidin-conjugated single-chain antibody binds Bacillus cereus T spores)
RE.CNT 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE

ANSWER 14 OF 38 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1998:427289 CAPLUS
DN 129:94191
ED Entered STN: 11 Jul 1998
TI Development of a streptavidin-conjugated single-chain antibody that binds Bacillus cereus spores
AU Koo, Kai; Foegeding, Peggy M.; Swaisgood, Harold E.
CS Department of Food Science, North Carolina State University, Raleigh, NC, 27695-7624, USA
SO Applied and Environmental Microbiology (1998), 64(7), 2497-2502
CODEN: AEMIDF; ISSN: 0099-2240
PB American Society for Microbiology
DT Journal
LA English
CC 15-3 (Immunochemistry)
Section cross-reference(s): 17
AB Control of microorganisms such as Bacillus cereus spores is critical to ensure the safety and a long shelf life of foods. A bifunctional single chain antibody has been developed for detection and binding of B. cereus T spores. The genes that encode B. cereus T spore single-chain antibody and streptavidin were connected for use in immunoassays and immobilization of the recombinant antibodies. A truncated streptavidin, which is smaller than but has biotin binding ability similar to that of streptavidin, was used as the affinity domain because of its high and specific affinity with biotin. The fusion protein gene was expressed in Escherichia coli BL21 (DE3) with the T7 RNA polymerase-T7 promoter expression system. Immunoblotting revealed an antigen specificity similar to that of its parent native monoclonal antibody. The single-chain antibody-streptavidin fusion protein can be used in an immunoassay of B. cereus spores by applying a biotinylated enzyme detection system. The recombinant antibodies were immobilized on biotinylated magnetic beads by taking advantage of the strong biotin-streptavidin affinity. Various liqs. were artificially contaminated with 5 + 104 B. cereus spores per mL. Greater than 90% of the B. cereus spores in phosphate buffer or 37% of the spores in whole milk were tightly bound and removed from the liquid phase by the immunomagnetic beads.
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(T; streptavidin-conjugated single-chain antibody binds Bacillus cereus T spores)
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(single chain; streptavidin-conjugated single-chain antibody binds Bacillus cereus T spores)
IT Bacillus cereus
Food preservation
(streptavidin-conjugated single-chain antibody binds Bacillus cereus T spores)
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RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(streptavidin-conjugated single-chain antibody binds Bacillus cereus T spores)
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(streptavidin-conjugated single-chain antibody binds Bacillus cereus T spores)
RE.CNT 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE

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(2) Bassam, B; Anal Biochem 1991, V196, P80 CAPLUS
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